US-PAT-NO: 6073112

DOCUMENT-IDENTIFIER: US 6073112 A

TITLE: Computer system for merchant communication to customers

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Application Filing Date - AD (1):
19990712

Detailed Description Text - DETX (73):
the Internet. The merchant having an existing Website formats his Home Page with topic selections and links (e.g., Hypertext HTML technology) to appropriate working programs 53. In particular, for each topic selection there is a respective hyperlink to a working program 53 and optionally an event 37 for initiating the program 53. Upon end user selection of a topic from the merchant's Home Page, the present invention applies the linked event 37 (if any). If the criteria of the event 37 are met (or if there is no initiating event 37), then the present invention executes the corresponding working program 53. This results in the working program 53 contents 63, 65 being transmitted (on-line, through a vendor-mail house, telemarketer, or from the merchant himself as described previously) to the end user. The contents (program items 63 and attachments 65) include information corresponding to the topic selected by the end user, as predetermined by the merchant at the time the Home Page selections and links are defined. In order for event 37 conditions to be **monitored or evaluated, the present invention maintains the marketing database 19 to include data regarding Web** transactions of the end user.

US-PAT-NO: 6094681

DOCUMENT-IDENTIFIER: US 6094681 A

TITLE: Apparatus and method for automated event notification

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Application Filing Date - AD (1):
19980331

Claims Text - CLTX (8):
wherein said step of **monitoring said specified user-intended messages includes receiving a web page update from a web** server on the World Wide Web, said analyzing step including executing a search of data content of said web page update to detect an indication of an occurrence of one of said designated events.

US-PAT-NO: 6219676

DOCUMENT-IDENTIFIER: US 6219676 B1

TITLE: Methodology for cache coherency of web server data

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Application Filing Date - AD (1):
19990806

Brief Summary Text - BSTX (14):
In another embodiment, the method maintains cache coherency by defining at least one **monitor area for the web server data,** maintaining a change log at the web server, determining if an activity occurs to the monitor area and, if an activity occurs, updating the change log in response to the activity. This notifies a client to the web server of the activity through the change log, thereby maintaining coherency with the web server.

Claims Text - CLTX (2):
defining at least one **monitor area for the web server data**;

US-PAT-NO: 6539360

DOCUMENT-IDENTIFIER: US 6539360 B1
See image for Certificate of Correction

TITLE: Special handling processing in a package transportation system

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Application Filing Date - AD (1):
19990205

Detailed Description Text - DETX (29):
Those skilled in the art will understand that when the foregoing method involves a step of accessing or **monitoring files or data on a web** site, the terminals or PCs accessing the information using a browser may be configured to periodically poll the site and to display the result of the polling, eliminating the need for manual activity to access the sites to periodically check the status of packages. Furthermore, the accessing machine may be programmed to analyze the data received and to provide a visual or audible alert, an automatic e-mail message, or an automatic pager signal, if a matter needs attention.

US-PAT-NO: 6745224

DOCUMENT-IDENTIFIER: US 6745224 B1

TITLE: Object framework and services for periodically recurring operations

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Application Filing Date - AD (1):
19961206

Detailed Description Text - DETX (157):
With reference still to FIG. 9, the client application uses the interfaces described above to programmatically request, **monitor, and control update operations by Web** Check 53 (FIG. 2). The use of the interfaces to schedule an update operation using an off-line reading update operation as an example is illustrated in FIG. 9.

US-PAT-NO: 6249817

DOCUMENT-IDENTIFIER: US 6249817 B1

TITLE: Data-update monitoring in communications network

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Application Filing Date - AD (1):
19990107

Detailed Description Text - DETX (279):
2-2-3) **Monitor of Data Update With Respect to Web** Server

Detailed Description Text - DETX (287):
The communications terminal that can **monitor an update of data stored in a particular Web** server will be described later in detail as another embodiment.

Detailed Description Text - DETX (289):
Although the communications terminal can **monitor an update of the data stored in a particular Web server as discussed above, a data-update monitor** server may be connected to the Internet and used specifically for the purpose.

Detailed Description Text - DETX (301):
After the registration of the monitor URL, the communication unit 1500 accesses the Web server defined by the monitor URL through the Internet 3000. For example, when the data 4100 are to be monitored, the communication unit 1500 accesses the Web server 4000 according to the monitor URL. The **monitor unit 1100 checks whether or not the data 4100 stored in the Web** server 4000 have been updated, and stores the result of the update check in the storage unit 1400. The monitor unit 1100 periodically carries out the update check for all the registered monitor URLs.

Detailed Description Text - DETX (302):
When the user wants to know an update of data, the user asks the data-update monitor server 1000 via the client 2000 whether or not the data have been updated. The registration management unit 1200 reads the result of the update check with respect to the data stored in the monitor URL registered by the user, from the storage unit 1400 and transmits the result to the client 2000 to inform the user of the result. The registration management unit 1200 has been informed of the date and time of latest access, on which the client 2000 accessed the **monitored Web server and obtained data from the Web** server, and transmits the latest result of the update check after the date and time of latest access to the client 2000.

Detailed Description Text - DETX (308):
On an access to the Web server, the monitor unit 1100 may obtain the data itself being monitored and store the data into the storage unit 1400. In this structure, the registration management unit 1200 may transmit the data to the client 2000 in response to a requirement of data transmission from the user via the client 2000. This structure enables the user to readily obtain the **data stored in the Web server via the data-update monitor** server 1000.

Detailed Description Text - DETX (309):
When obtaining the **data itself being monitored from the Web** server, the monitor unit 1100 may classify and sort out the received data by the dates or by the keywords as shown in FIG. 39 and store the classified data into the storage unit 1400. In this structure, the registration management unit 1200 may create an index page including links to the respective dates or keywords and transmit both the classified data and the index page to the client 2000 in response to a requirement of data transmission from the user via the client 2000. In accordance with another preferable application, the registration management unit 1200 may transmit only the index page first, and, when the user checks the index page and requires transmission of data, transmit the required data extracted from the classified data

Detailed Description Text - DETX (312):
In accordance with one preferable application, while the storage unit 1400 stores the **data obtained from the Web server, in response to the confirmation of an update of the desired data, the monitor unit 1100 obtains updated data from the Web** server and replaces the old data stored in the storage unit 1400 by the updated data. This structure enables transmission of the latest data to the user in response to a user's requirement.

Detailed Description Text - DETX (313):
In accordance with another preferable application, while the storage unit 1400 stores the **data obtained from the Web server, in response to the confirmation of an update of the desired data, the monitor unit 1100 obtains updated data from the Web** server, compares the updated data with the old data stored in the storage unit 1400, detects updated points among the data, and stores the result of detection in the storage unit 1400. In case that the user inquires the updated points, the registration management unit 1200 may read the result of detection from the storage unit 1400 and inform the client 2000 of the result.

Detailed Description Text - DETX (328):
The client 2000 then accesses the Web server to obtain the updated **data from the Web server, and transmits the monitor** URL of the obtained data (that is, information on the monitor URL from which the client 2000 obtained data) and the date and time when the client 2000 obtained the data as well as the user ID and the password to the data-update monitor server 1000. The data-update monitor server 1000 updates the user data based on the transmitted information.

Detailed Description Text - DETX (336):
The data-update **monitor server that can monitor an update of data stored in a particular Web** server will be described later in detail as another embodiment.

Detailed Description Text - DETX (339):
FIG. 46 is a block diagram illustrating structure of a communications terminal 700 as a third embodiment according to the present invention. FIG. 47 is a block diagram illustrating structure of an agent execution unit 702 shown in FIG. 46. The communications terminal 700 of this embodiment is suitable for the Web on the Internet communication and can **monitor an update of data stored in a particular Web** server on the Internet.

Detailed Description Text - DETX (425):
The network access unit 716 accesses a Web server based on the target URL, and the update detection element 724 in the agent execution unit 702 checks whether or not the update-**monitor target data in the Web** server have been updated via the network access unit 716 at step S244. In accordance with a concrete procedure, the update detection element 724 utilizes the date and time of latest update as an IF-Modified-Since header and issues a GET method to the Web server. In case that the update-monitor target data have been updated, the network access unit 716 automatically receives the updated update-**monitor target data from the Web** server at step S246. In case that the update-monitor target data have not been updated, on the contrary, the program does not obtain any update-monitor target data and exits from the routine of FIG. 59.

Detailed Description Text - DETX (426):
The header may not include information on the date and time of latest update. In such a case, the agent execution unit 702 obtains the update-**monitor target data from the Web server and compares the contents of the obtained update-monitor** target data with the contents of the reference data. When any change is found in the contents, it is assumed that the data have been updated. In this state, the date and time when the comparison was carried out is regarded as the date and time of latest update.

Detailed Description Text - DETX (428):
The difference analyzer engine 726 compares the update-**monitor target data (HTML data) transmitted from the Web server with the reference data** (HTML data) regarding the target URL and read from the reference data storage unit 708, and specifies a portion of the update-monitor target data that does not coincide with the reference data as difference data at step S250. The difference data accordingly corresponds to an updated portion of the data.

Detailed Description Text - DETX (452):
FIG. 62 is a flowchart showing details of the operation for update check carried out at step S230 in the flowchart of FIG. 58. When the program enters

the routine of FIG. 62, the agent execution and management element 720 reads URL data regarding a target URL corresponding to the agent in execution out of the URL data stored in the new incoming information database 706 via the data management unit 704, and extracts information on the date and time of latest update of the update-monitor target data from the read-out URL data. The network access unit 716 accesses a Web server based on the target URL, and the update detection element 724 checks whether or not the update-**monitor target data in the Web** server have been updated, based on the information on the date and time of latest update at step S270.

Detailed Description Text - DETX (455):

In case that the update-monitor target data have been updated, the updated update-monitor target data as well as the new piece of title information showing that the update-monitor target data have been updated may be stored in the new incoming information table in the new incoming information database 706. In this case, the network access unit 716 obtains the updated update-**monitor target data from the Web** server while the update detection element 724 receives the date and time of update of the update-**monitor target data from the Web** server. The specific title information showing that the update-monitor target data have been updated and the updated update-monitor target data are stored respectively as the new piece of title information and body data in the new incoming information table in the new incoming information database 706. At this moment, link information that links the body data with the title information is also stored in the new incoming information table. When the user selects the specific title information showing that the update-monitor target data have been updated among the new incoming information displayed on the screen of the monitor 713, the contents of the updated update-monitor target data (index page) are displayed as body information related to the selected title information.

Detailed Description Text - DETX (457):

FIG. 63 is a block diagram illustrating structure of a data-update monitor server 800 as a fourth embodiment according to the present invention. FIG. 64 is a block diagram illustrating structure of the agent execution unit 802 shown in FIG. 63. The data-update **monitor server 800 of this embodiment can monitor an update of data stored in a particular Web** server on the Internet. In the fourth embodiment, the data-update monitor server 800 carries out a data-update monitor operation, instead of the communications terminal functioning as a client.

Detailed Description Text - DETX (521):

Enabling update **monitor for in-company data in in-company Web** server

US-PAT-NO: 6249817

DOCUMENT-IDENTIFIER: US 6249817 B1

TITLE: Data-update monitoring in communications network

---------- KWIC ---------

Application Filing Date - AD (1):
19990107

Detailed Description Text - DETX (279):
2-2-3) Monitor of Data Update With Respect to Web Server

Detailed Description Text - DETX (301):
After the registration of the monitor URL, the communication unit 1500 accesses the Web server defined by the monitor URL through the Internet 3000. For example, when the data 4100 are to be monitored, the communication unit 1500 accesses the Web server 4000 according to the monitor URL. The monitor unit 1100 checks whether or not the data 4100 stored in the Web server 4000 have been updated, and stores the result of the update check in the storage unit 1400. The monitor unit 1100 periodically carries out the update check for all the registered monitor URLs.

Detailed Description Text - DETX (312):
In accordance with one preferable application, while the storage unit 1400 stores the data obtained from the Web server, in response to the confirmation of an update of the desired data, the monitor unit 1100 obtains updated data from the Web server and replaces the old data stored in the storage unit 1400 by the updated data. This structure enables transmission of the latest data to the user in response to a user's requirement.

Detailed Description Text - DETX (313):
In accordance with another preferable application, while the storage unit 1400 stores the data obtained from the Web server, in response to the confirmation of an update of the desired data, the monitor unit 1100 obtains updated data from the Web server, compares the updated data with the old data stored in the storage unit 1400, detects updated points among the data, and stores the result of detection in the storage unit 1400. In case that the user inquires the updated points, the registration management unit 1200 may read the result of detection from the storage unit 1400 and inform the client 2000 of the result.

Detailed Description Text - DETX (328):
The client 2000 then accesses the Web server to obtain the updated data from

the Web server, and transmits the monitor URL of the obtained data (that is, information on the monitor URL from which the client 2000 obtained data) and the date and time when the client 2000 obtained the data as well as the user ID and the password to the data-update monitor server 1000. The data-update monitor server 1000 updates the user data based on the transmitted information.

Detailed Description Text - DETX (425):

The network access unit 716 accesses a Web server based on the target URL, and the update detection element 724 in the agent execution unit 702 checks whether or not the update-monitor target data in the Web server have been updated via the network access unit 716 at step S244. In accordance with a concrete procedure, the update detection element 724 utilizes the date and time of latest update as an IF-Modified-Since header and issues a GET method to the Web server. In case that the update-monitor target data have been updated, the network access unit 716 automatically receives the updated update-monitor target data from the Web server at step S246. In case that the update-monitor target data have not been updated, on the contrary, the program does not obtain any update-monitor target data and exits from the routine of FIG. 59.

Detailed Description Text - DETX (433):

When the link destination is not in the Web server in which the update-monitor target data are stored, but in another specific Web server, it is required to access the specific Web server in order to obtain body data from the link destination. In this case, the link destination body data-obtaining element 722a may not obtain body data from the link destination.

Detailed Description Text - DETX (452):

FIG. 62 is a flowchart showing details of the operation for update check carried out at step S230 in the flowchart of FIG. 58. When the program enters the routine of FIG. 62, the agent execution and management element 720 reads URL data regarding a target URL corresponding to the agent in execution out of the URL data stored in the new incoming information database 706 via the data management unit 704, and extracts information on the date and time of latest update of the update-monitor target data from the read-out URL data. The network access unit 716 accesses a Web server based on the target URL, and the update detection element 724 checks whether or not the update-monitor target data in the Web server have been updated, based on the information on the date and time of latest update at step S270.

Detailed Description Text - DETX (455):

In case that the update-monitor target data have been updated, the updated update-monitor target data as well as the new piece of title information showing that the update-monitor target data have been updated may be stored in the new incoming information table in the new incoming information database 706. In this case, the network access unit 716 obtains the updated update-monitor target data from the Web server while the update detection element 724 receives the date and time of update of the update-monitor target data from the Web server. The specific title information showing that the update-monitor target data have been updated and the updated update-monitor target data are stored respectively as the new piece of title information and

body data in the new incoming information table in the new incoming information database 706. At this moment, link information that links the body data with the title information is also stored in the new incoming information table. When the user selects the specific title information showing that the update-monitor target data have been updated among the new incoming information displayed on the screen of the monitor 713, the contents of the updated update-monitor target data (index page) are displayed as body information related to the selected title information.